

REMARKS

Claims 1-4, 9-11 are all the claims pending in the application.

Claims 12-15, and 20-22 have been cancelled without prejudice or disclaimer.

Applicant has Amended claim 1 to further clarify Applicant's claimed invention.

Claim Rejections - 35 U.S.C. § 112 2nd Paragraph

Claims 1 and 12 have been rejected under 35 U.S.C. §. 112, 2nd paragraph, as being indefinite. In response, Applicant traverses and has amended the claim 1 in a manner believed to overcome the rejection. Claim 12 has been cancelled, therefore, the rejection to claim 12 is moot.

Claim Rejections - 35 U.S.C. § 103

Claims 1-4, 9-15 and 20-22 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al. (EP 0817053 A1 hereinafter "Williams") in further view of McDonald (U.S. Patent No.: 5,249,188). Claims 12-15, and 20-20 have been cancelled, therefore, the rejections to claims 12-15, and 20-22 are moot. However, Applicant traverses the rejections of claims 1-4 and 9-11 because neither Williams or McDonald disclose or suggest all of the claim limitations. Specifically, the references fails to teach or suggest at least the following:

Claim 1:

wherein said monitor element receives address strobes from said first and second processors, and **determines that said first and second computer elements keep said synchronism when said monitor element receives said address strobes during the same cycle**

A feature of the claimed invention as defined by the amended claim 1 relates to a monitor element which determines that the first and second computer elements keep said synchronism when said monitor element receives said address strobes during the same cycle. In other words, the monitor element determines that the first computer element is out of synchronism whether or not the monitor element receives the address strobes during the same cycle. The address strobe is outputted from a processor of the computer element before the processor outputs a command and an address for accessing a memory element. As a result, the monitor element is able to detect that the first and second computer elements are out of synchronism before the processor performs an actual access to the memory. That is, the monitor element is able to detect that the first and second computer element are out of synchronism at an early stage. Hence, with detecting that the first and second computer elements are out of the synchronism at the early stage, out of synchronism is recovered early.

On the other hand, McDonald discloses an apparatus which includes the followings:

- 1) a master processor and a slave processor, each of which provide the ADS(address status signal) to a ready synchronizer (Col 1, lines 56-58, Col 1, lines 64-66, and Col 2, lines 4-5),

2) the ready synchronizer which generates a synchronized ready signal subsequent to receiving the ADS of both of the master and slave processor (Col 2, lines 5-8), where the synchronized ready signal is transmitted to the master processor, the slave processor, and a comparator (Col 2, lines 8-14),

3) the comparator which compares the address buses and the data buses of the master processor and the slave processor after the comparator receives the synchronized ready signal (Col 2, lines 12-16), and

4) the comparator which generates an alarm signal when either bus contains different values, thereby detecting the fault in the central processing unit system (Col 2, lines 16-19).

The synchronized ready signal [of McDonald] is transmitted to the comparator from the ready synchronizer when the ready synchronizer receives the ADSs of both of the master and slave processors, and after receiving the synchronized ready signal, the comparator generates the alarm when either bus contains different values, thereby detecting the fault (out of synchronism). Accordingly, it is apparent that McDonald does not teach or suggest the means for detecting the fault based on determining whether the ADSs are received during the same cycle or not. Therefore, it would not have been obvious to modify the apparatus of William by adding the McDonald's apparatus. From the reasons stated above, we believe that the claimed invention is fully patentable over the cited reference.

Therefore, at least for these reasons, Applicant respectfully submits that claim 1 is patentable.

Amendment Under 37 C.F.R. § 1.111
U.S. Application No.: 10/612,930

Attorney Application No.: Q76415

Additionally, claims 2-4, and 9-11 are allowable at least based on their dependency from claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Carl J. Pellegrini
Registration No. 40,766

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

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